

ABSTRACT OF THE INVENTION

A method for solving any arbitrary multi-dimensional scientific or engineering design problem requiring solutions for stress, strain and deformation, and which therefore demands the incorporation of a material constitutive equation into the mathematical solution and wherein that constitutive equation, which quantitatively defines the relationship between stress and strain, incorporates independent tensor valued coefficients and a scalar valued constitutive function/s, and where the values of the tensor valued coefficients and the form of the constitutive function/s is specific to any particular material under consideration.